

VIII. *On some new Fungi.* By the Rev. M. J. BERKELEY, M.A., F.L.S.

Read May 5th, 1857.

A VERY valuable collection of Fungi has been lately made by Fendler in Venezuela, which are now in the hands of the Rev. M. A. Curtis of South Carolina, and will shortly be offered for sale. The collection abounds in new species, of which I have selected three as peculiarly interesting, with the intention of bringing one or two more under the notice of the Society at some future meeting. To these I have added a description of a new species of *Mitremyces* from South Carolina, and of a very curious genus of Hypogæous Fungi lately received from Tasmania, with many other good things, through the kindness of Mr. Archer. The Tasmanian collection will shortly be described in Dr. Hooker's Tasmanian Flora, but this genus is so curious that it deserves previously a more especial notice.

1. *HYDNUM BRUNNEOLEUCUM*, Berk. & Curt. Pileo flabelliformi arcuato tenui luteo-brunneo glabro; hymenio pallido setulis validis consperso.

On dead wood. Venezuela (*Fendler*).

Pileus thin, flabelliform, vaulted, $1\frac{1}{2}$ inch long, nearly as much broad, yellowish-brown, smooth, slightly streaked behind. Hymenium whitish, sprinkled with many scattered strong bristles.

This species is closely allied to *Hydnum flavum*, Berk. (*Peziza flava*, Swartz), a figure of which was published in the Annals of Nat. Hist. vol. x., from an original specimen in the British Museum. It occurs in Venezuela as well as Jamaica, and is no. 129 of Fendler's collection. It differs from the present species not only in colour, but in the bristles being divided above. Both belong to Fries' genus *Kneiffia*, but its characters scarcely separate it with sufficient precision from *Hydnum*. *H. brunneoleucum* is exactly a *Kneiffia*, but then *Hydnum luteum*, which is clearly congeneric, approaches so closely to *Hydnum*, that I know not how to separate it. The two species have a peculiar, *Peziza*-like habit which at once distinguishes them from all others.

2. *CRATERELLUS PAPYRACEUS*, Berk. & Curt. Pileo centrali tenuissimo umbilicato coccineo glabro; stipite gracili subæquali fusco; hymenio lævi ochraceo.

Venezuela (*Fendler*).

Pileus $3\frac{1}{2}$ inches across, extremely thin, umbilicate or very broadly infundibuliform, smooth, slightly fissured at the margin which is arched, bright scarlet, with a few vein-like pencilings in the umbilicus; stem 4 inches high, not a line thick, smooth, reddish-brown, equal except at the very base, where it is slightly dilated as it springs from the matted mycelium. Hymenium quite smooth, ochraceous.

This very beautiful Fungus, which is remarkable in the genus *Craterellus* for its elegant habit and extremely thin pileus, is conspicuous from the beautiful red of the pileus, resembling that of fading leaves of *Ampelopsis quinquefolia*. It is altogether one of the most charming species with which I am acquainted.

3. SKEPPERIA, nov. gen. (TAB. XXV. A.)

Stipes brevis, lateralis, in pileum tenuem utrinque arcte convolutum clavulamque obtusam referentem abrupte transiens; pileus externe cellulosus intus filamentosus.—Genus *Stereo* affine, Edmundo Skeppero plantarum Cryptogamicarum solerti indagatori dicatum.

S. CONVOLUTA, Berk. & Curt.

On dead sticks, Venezuela (*Fendler*, no. 286).

About 1 line high. Stem rising from a little orbicular disk $\frac{1}{3}$ of a line high, but confluent for some distance with the pileus and rather paler; pileus $\frac{2}{3}$ of a line high, of a deep vinous brown, sprinkled with little heaps of granules arising from the breaking up of the outer coat, strongly convolute on either side, so as to form a little compact clavate body with a deep groove on one side like that of a grain of wheat, composed externally of cells, internally of filaments which give rise to the hymenium. Hymenium pale, studded with cystidia.

This singular Fungus looks at first sight like a little *Mitrula*, with which genus it may be confounded if the microscopical structure is neglected. The outer surface, however, is covered with little heaps of granules consisting of a number of deeply coloured cells, beneath which smaller cells occur, which pass into branched threads, and these into an even hymenium consisting of closely packed sporophores with projecting cystidia.

Few genera are more singular in their characters. Notwithstanding the resemblance of *Pistillaria*, there is no close affinity. *Skepperia* will come next to *Stereum*, without however passing into it by any intermediate forms.

4. MITREMYCES RAVENELII, Berk. (TAB. XXV. B.) Pusillus; peridio exteriori in verrucas parvas liberas vel coherentes dehiscente; interiori glabro; intimo conformi, nec spatio magno vacuo circumdato; sporis ellipticis; ostiolo miniato.

On the ground. Caesar's Head, Mountains of South Carolina (*H. W. Ravenel, Esq.*).

Rather more than $\frac{1}{2}$ an inch high, including the stem. Stem short, consisting of intricate mucedinous threads. Outer peridium cracking up into warts of various sizes, which are sometimes scattered, but sometimes adhere together so as to form a little lid. Inner peridium smooth, pale, terminated with a few triangular vermilion-coloured teeth; inmost delicate, entirely filling the cavity of the second peridium; flocci abundant, white, terminated with little racemes of obtuse processes; spores ovate, $\frac{1}{2000}$ inch long, not granulated.

Very distinct from all the other species in the larger size of the inmost peridium. The nearest ally is *Mitremyces Junghuhnii*, figured in the 'Botanische Zeitung' for 1844, which has the teeth of the ostiolum pale, and the spores globose.

5. MESOPHELLIA, nov. gen. (TAB. XXV. C.)

Peridium crassum, coriaceum, substratosum; capillitium fasciculato-anastomosans, ad columellam centralem suberosam liberam radians; flocci subflexuosi; sporæ breviter fusiformes utrinque obtusiusculæ.—Genus *Cycloderma*, Klotzsch, affine; species hypogææ.

M. ARENARIA, Berk.

From $\frac{3}{4}$ –1 inch across, elliptic, somewhat depressed, subterraneous, clothed externally with white flocci which attach themselves to little grains of sand. After the external down has become exolte, dark branched veins are seen to run over the peridium, without however giving off free threads, as in *Hysteromyces*. Peridium single, coriaceous, apparently consisting of several compacted strata like wasp pasteboard; flocci pinkish-grey, radiating in little fascicles from the peridium to the large central corky columella, which is either entirely free, or attached by one or more tendinous threads; spores fusiform, short, slightly obtuse at either end, $\frac{1}{2\frac{1}{2}50}$ of an inch long, of the same colour as the flocci.

This genus approaches close to *Cycloderma*, Klotzsch, which appears to have been seen by no other botanist; but there is no inner peridium, the columella is not a prolongation of a stem, and the spores are not globose. It is a most interesting addition to the Hypogæous Fungi, and, like *Cycloderma*, connects *Trichogastres* with *Myxogastres* through *Lycogale*. The early condition of the plant is, however, quite unknown. The colour of the spores reminds one of *Lycogale*, and the veins of *Hysteromyces*. A Fungus was found by Mr. Drummond on the Swan River, resembling a large cocoon, which is undoubtedly congeneric with this, if not identical. The specimens were, however, very imperfect.

EXPLANATION OF THE PLATE.

TAB. XXV. A.

- Fig. 1. *Skepperia convoluta*, nat. size.
 Fig. 2. Single plant, magnified.
 Fig. 3. Section of pileus before the stem completely vanishes.
 Fig. 4. Section of ditto more highly magnified.
 Fig. 5. Hymenium.

TAB. XXV. B.

- Fig. 1. *Mitremyces Ravenetii*, nat. size.
 Fig. 2. Section slightly magnified.
 Fig. 3. Flocci from young peridium and spores.
 Fig. 4. Flocci from old peridium.

TAB. XXV. C.

- Fig. 1. *Mesophellia arenaria*, nat. size.
Fig. 2. Section of ditto.
Fig. 3. Veins on the peridium, magnified.
Fig. 4. Tissue of veins.
Fig. 5. Flocci of capillitium.
Fig. 6. Spores magnified.